

10329 Tiny Plants

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Create an elegant, zero-maintenance floral display with this home decor building set for adults. The LEGO® Icons Tiny Plants (10329) building project features flora based on arid, tropical and carnivorous species, each nestled in a buildable, terracotta-colored container. Enjoy time out crafting each of the 9 plants before displaying them in your home or office.

This set makes a great gift for plant-lovers and is the perfect project to enjoy with friends and family. Suitable for both new and advanced builders, it includes different models for easy, medium, and advanced levels of building complexity.

Home decor building set for adults – Take time out or join friends and family for a relaxing building experience with the Lego Icons Tiny Plants building set.

Creative building for plant-lovers – This set includes all you need to craft 9 plants based on arid, tropical and carnivorous species, each nestled in a buildable, terracotta-colored plant pot.

Easy-care decor for the home or office – Add a self-sufficient splash of color to any space with this buildable, zero-maintenance floral display.

A mindful gift idea – The Lego Icons Tiny Plants building set makes a great birthday or any-day gift idea for adult fans of Lego building sets and flora.

Dimensions – The tallest plant in this 758-piece building set (including its container), measures over 16 centimeters (6.5 inches) high, 10 centimeters (4 inches) wide and 6 centimeters (2.5 inches) deep.

The front of the box shows all nine of the plants in their terracotta-effect pots against a black background with a grey-green banner around the base of the box. There are three trios of plants, each consisting of a small, medium, and large plant. The first trio is formed of a false shamrock, jade plant, and laceleaf, which comprise the tropical plants. The second trio, the carnivorous plants, is made up of a Venus flytrap, red sundew and a yellow pitcher plant. The third and final trio is a group of arid plants: a succulent, a prickly pear, and a pincushion cactus. The back of the box shows the plants gathered into their sets and displayed on shelves and on a table. A schematic-style wireframe diagram of the laceleaf shows that it is 10 centimeters (4 inches) wide and stands 16 centimeters (6.5 inches) tall. On top of the box is a top-down view of the plants and an inset featuring a life-size picture of the smallest size of pot.

The set contains 758 pieces split across 6 bags. The set is intended for ages 18 and over.

Welcome to Text-Based Building Instructions from Bricks for the Blind. Here is some helpful information on how to best use screen readers and browsers: bricksfortheblind.org/help-with-screen-readers. Before you start building, here are some terms we will be using:

- In Front of/Front: towards you.
- Behind/Back: away from you.
- Up: towards the ceiling.
- Down: towards the floor.
- Stud: the bump on a LEGO brick. Example: A 2x1 brick has two studs on it.
- Vertically: with the longest side going from front to back
- Horizontally: with the longest side going from left to right.
- Upright: pointing up towards the ceiling.
- Standing upright: The piece is perpendicular to the ground, like a wall.
- Lying flat: The piece is parallel to the ground, like a piece of toast which fell off the table.
- That one/ppp: previously placed piece.
- Plate: piece with studs.
- Tile: smooth piece without studs (unless otherwise specified)
- A jumper plate is a 1x2 plate with a single stud on top, or a 1x3 plate with only two studs on top.
- “Anti-stud” is a term for the portion of a LEGO piece which accepts studs, like the bottom of a plate or brick.

- Symmetrically: a mirror image. Example: If you place a 2x1 brick with technic connector on the front wall at the right, connector to the front, and then place another such piece symmetrically on the back wall, at the right, the technic connector of the second piece should point to the back, since it will be placed symmetrically.
- Centered-vertically: even amount of space in front of and behind piece
- Centered-horizontally: even amount of space left and right of piece.
- Row: studs lined up horizontally (left to right/side to side).
- Column: studs lined up upright or vertically (top to bottom/back to front).

A note on LEGO Technic™ part names. These parts are somewhat different from regular LEGO bricks. Here are some definitions in case the builder or helper is not familiar with LEGO Technic™.

Axles - An axle is a connector which has an X shaped cross-section. Because their cross section is not round, anything connected to an axle using an axle-hole will rotate with that axle. Axles are longer than they are wide, and the length of an axle corresponds with how many bricks long it is. Aka a 3L axle is three bricks long. Axles come in a variety of lengths, with a 2L axle being the shortest available. They may be combined with pins, or have circular stops on them. A stop prevents the axle from sliding through an axle-hole at a specific point on the axle.

Pins - A pin is a connector which has a circular cross section and a flanged notch out of one or both ends. This flanged notch allows them to click into bricks with a pin-hole. Pins come with and without friction ridges, which are small bumps on the pin which prevent them from rotating freely. For standard pins, black is a high friction pin, and gray is a low friction pin. A standard length pin is two brick lengths long, with a stop in the middle. This prevents a brick from being pushed from one side of the pin to the other. A 1L pin is one brick long and still retains the stop, however it also includes a hollow stud at the other end. A 3L pin is three bricks long, and only contains a stop at one side, allowing two bricks to be pushed onto the other side of the pin. Pins may also have one side which is an axle.

Technic brick - a brick which contains one or more holes which accept technic pins.

Lift-arms - A lift-arm is a basic structural element, similar to a brick or a plate, but usually without any studs. It is a beam with rounded ends and with holes in it, with the same spacing as the studs on a LEGO brick. lift-arms come in a variety of lengths, including a 1x1 lift-arm which looks like a cylinder. Thick lift-arms are as wide as a LEGO brick, and thin lift-arms are half as wide as a LEGO brick, but not the same thickness as a LEGO plate! The holes in a lift-arm arm may accept axles or pins. They also come in a variety of shapes, including tees, ells and triangles.

Gears - A gear is a functional element. They are typically discs with teeth on the outside, there are also worm gears which look like a spiraling cylinder! Gears connected by axles transmit or even transform rotational motion!

Axle and Pin Connectors - These elements are typically smaller than lift-arms and are used to connect some combination of pins or axles. They might have pins or axles, as well as axle or pin-holes. They have a lot of different angle combinations! The simplest just connects two axles or pins together in a straight line.

Bushes/Bushings - LEGO Technic™ uses bushes largely as spacers, but they also can reduce friction between rotating parts, or can form useful elements such as handles. Bushes are typically light gray, generally cylindrical, and have an axle-hole running through the middle. They have a flange at the front and back to make them easier to pull on and off.

For builders with low vision, or a sighted building partner who may want to follow along with the printed visual instructions that come with each set, PDF versions are always online at [<https://www.lego.com/en-us/service/buildinginstructions/10329>]: As low vision users may benefit from viewing the instructions on a personal device where they can zoom in on content and use assistive technologies to enhance the visuals.

To begin a successful build, it helps to sort the pieces into groups, bags or small containers. Have a sighted friend or family member do this in advance following the instructions below. You will see that the pieces should be sorted into groups according to the building steps in the set. Doing this in advance makes locating the pieces easier. See below on how to sort the pieces to correspond to the steps in this set. Number the containers using letters A-Z, numbers or meaningful names. The parts will be collected into a small number of steps in the instructions. Example: Steps 1-3 means collect all the parts used in steps 1, 2 and 3, and put them in one container.

Note that the steps begin again from 1 upon completion of each plant.

Bag 1 (print instruction booklet 1 – false shamrock and jade plant)

Group 1 – steps 1-6

Group 2 – steps 1-3 (minus the green pieces from step 3)

Group 3 – green pieces from step 3 and steps 4-7

Group 4 – steps 8-12

Bag 2 (print instruction booklet 1 – laceleaf)

Group 5 – steps 1-7

Group 6 – steps 8-13

Group 7 – steps 14-18

Group 8 – steps 19-23

Bag 3 (print instruction booklet 2 – Venus flytrap and red sundew)

Group 1 – steps 1-6

Group 2 – steps 7-10

Group 3 – steps 1-3

Group 4 – red pieces from step 3 plus steps 4-7 plus a dark pink 1x1 round plate with hollow stud

Group 5 – steps 8-14 (please stack the dark tan 1x1 round plates with hollow studs to differentiate them from the yellow version of the same piece)

Bag 4 (pitcher plant)

Group 1 – steps 1-7

Group 2 – steps 8-13

Group 3 – steps 14-17

Group 4 – steps 18-21

Bag 5 (print instruction booklet 3 – Britton's liveforever and prickly pear)

Group 1 – steps 1-7

Group 2 – steps 1-3 (minus the yellow pieces from step 3)

Group 3 – yellow pieces from step 3 plus steps 4-8

Group 4 – steps 9-17

Bag 6 (print instruction booklet 3 – pincushion cactus)

Group 1 – steps 1-7

Group 2 – steps 8-13

Group 3 – steps 14-17

Group 4 – steps 18-26

Group 5 – steps 27-34

Group 6 – steps 35-37

The first booklet of the print instructions opens with the following note from the model designer: "Cultivate your creative finger: 'These humble but prolific terracotta pots are the latest addition to the LEGO Botanical Collection – three groups of iconic and exotic plants, miniaturized to bring classic Lego charm to your home. From humidity-loving houseplants to desert-dwelling succulents and peculiar carnivores, this vibrant mix of plants work as a group or in smaller sets of three, keeping their color and their fun year-round. With instructions created to make it easy for you to invite friends or loved ones to join in, we hope you'll enjoy your conservatory together!' – Theo Bonner, Lego Model Designer"

The next page shows the first three models and their real-life counterparts. An introduction reads as follows: "Tropical Plants: Tropical rainforests cover only around 6% of the Earth's surface, yet they are home to nearly two-thirds of all plant species, including plants with medicinal properties used in the treatment of a variety of illnesses. The warm, humid conditions allow thousands of vibrant, lush flowers, trees and bushes to thrive and serve as shelter and nourishment for animals and humans alike."

Opposite the introductory paragraph is a page featuring close-up photographs of the real plants that the models are based on. The first plant is the false shamrock (*Oxalis triangulate*), a purple plant with stems terminating in three triangular leaves arranged in a manner not dissimilar to the clover, hence the name. A caption reads: "False shamrock: A perennial plant native to Argentina, Bolivia, Brazil, Paraguay and Peru."

The second plant is the jade plant (*Crassula ovata*), which has thick stems from which grow round, nodular green leaves. The caption reads: "Jade plant: A large succulent native to South Africa and Mozambique."

The final plant is the laceleaf (*Anthurium andraeanum*), which has as its stand-out feature a flower with a single broad, waxy heart-shaped bright red petal with a yellow stamen rising from the nook of the heart. The caption reads: "Laceleaf: A flowering plant native to Columbia and Ecuador."

Now we can begin building! The first bag contains the parts necessary to build the false shamrock and the jade plant, with the false shamrock being the first build.

Start Building

Step 1

Open the first bag and retrieve the first group of parts. First, we will build a pot for the false shamrock. Take a dark orange half-barrel piece and a light grey round 2x2 brick. Connect the round brick to the 2x2 of studs inside the barrel.

Step 2

Next, find a bright green 2x2 round tile with pinhole and a black 2L axle with 1L pin. Place the round tile on top of the round brick, then insert the axle end of the axle with pin and push it all the way into the model. The pin will stick out of the top of the pot.

Step 3

Locate a dark orange Technic wheel and orient it with the wide rim facing up. It should feel a little like a bowl, with a hexagon of pin holes in the middle. Align the pin with the central pinhole of the Technic wheel and push them together so they connect.

The dark orange pieces are perfect for representing terracotta pots. Next, as with a real plant, we will add some soil before constructing and potting our false shamrock.

Step 4

Collect two dark grey 1L pins. Locate the pinholes on each side of the center pinhole and insert a pin into each hole.

Step 5

Find a dark brown 4x4 round plate and a brown 2x2 round jumper. The brown pieces represent soil into which we will later place the false shamrock. Place the 4x4 round plate in the pot and press it into place – it should connect to the studs on the ends of the pins placed in the previous step. (If it is not connecting, rotate the plate a little and try again.) Then, put the jumper on the middle 2x2 of studs.

Step 6

Now we can build the plant itself! Gather six purple butterflies and a tan flower stem with six stems. Place the first three butterflies on the middle three stems, rotating them so that they can all fit. Then, place the other three butterflies on the outer three stems so they face in toward the center. Finally, add the false shamrock to the pot by inserting the bar at the base of the stem piece into the bar hole in the center of the pot.

The print instructions include the following information on the model: “At a glance, *Oxalis triangulate* could be mistaken for a large group of butterflies, so what better way to capture this plant's iconic look than by using the Lego butterfly in a brand-new color.”

Well done for finishing the first of the tiny plants! Next, we will build the jade plant, again starting with the pot

Step 1

Collect the next group of pieces and find two dark orange 2x4 plates and a dark brown 4x4 round plate. Orient the 2x4 plates horizontally. Place the first on the front two rows of the round plate, then place the second on the back two rows.

Step 2

Find two dark grey modified 1x4 bricks with 1x4 side studs and two black 1x2 bricks with log profile. Orient the 1x2 bricks horizontally. Put one on the middle two studs of the front row and put the other on the middle two studs of the back row, leaving an empty 2x2 of studs between them. Next, orient a 1x4 brick vertically with the side studs facing left and place it on the left column of the part. Place the second 1x4 symmetrically on the right.

Step 3

Gather four light grey modified 1x2 bricks with 2x2 side studs, then collect two bright green modified 1x2 bricks with 2x2 side studs from the next group of parts. Orient the first two grey bricks with the side studs facing forward and place them on the front row of studs, then place the other two grey bricks symmetrically on the back row. Next, orient a green brick vertically with the side studs facing left and place it on the middle two studs of the left column. Connect the second green brick symmetrically to the model's right column.

Step 4

Open the next group of bricks. Take a dark brown 4x4 round plate and put it on top of the model, covering the hollow center.

Step 5

Now we will construct the sides of the pot. Gather the following pieces: four dark orange 2x2 curved slopes, two dark orange 2x2 modified tiles with 1x2 studs, two dark orange 3x4 triple-curved wedges, and two brown 2x2 modified plates with 1x2 side studs. Use the parts to make two of the following part:

5.1. Take a 2x2 modified plate and orient it with the side studs facing right.

Step 5.2

Orient a 2x2 modified tile vertically with the studs to the right and connect it to the left column of the modified plate.

Step 5.3

Find a 2x2 curved slope and position it so it slopes down toward you, then put its back row on the front row of the part. Place the second 2x2 curved slope symmetrically behind the first.

Step 5.4

Hold the triple-curved wedge vertically with the inset studs to the right. Connect the part's left end to the studs.

Step 5.5

Repeat the above steps to obtain a second part. Now we can attach them to the model – hold one of the parts upright with the curved surfaces facing left and the studs at the top. Align the bottom of the triple-curved wedge with the 1x4 of side studs on the left side of the pot, then press the part into place. The top of the part will sit higher than the 4x4 round plate in the middle of the pot. Place the second part symmetrically on the right side of the pot.

Step 6

Gather the following parts: four dark orange 2x2 curved slopes, two dark orange 2x2 modified tiles with 1x2 studs, two dark orange 3x4 triple-curved wedges, four dark orange 1x2 rail plates, and two brown 2x2 modified plates with 1x2 side studs. Use them to create two of the following part:

Step 6.1

Orient a 2x2 modified plate with the side studs facing right.

Step 6.2

Take a modified tile and hold it vertically with the studs on the right, then connect its right column to the left column of the modified plate.

Step 6.3

Orient a 2x2 curved slope so it curves down in front, then place the back row of the piece on the front row of studs. The smooth section of the tile should stick out to the left. Place the second symmetrically behind the first.

Step 6.4

Take a rail plate and hold it horizontal with the rail in front. Connect it under the overhang of the front curved slope. Place the second symmetrically at the rear.

Step 6.5

Position the triple-curved wedge vertically with the inset studs to the right. Connect the modified tile's overhang to the inset column of studs.

Step 6.6

Repeat the above steps to obtain a second part. To add the first part to the model, first orient it upright with the curved surface facing you and the studs at the top, then place it on the front side studs so that the top of the part is flush with the sides of the pot. The rail plates should sit against the sides of the pot, closing any gaps that might be present. Place the second part symmetrically at the rear of the pot.

Step 7

Collect four dark orange 3x3 round corner tiles (colloquially known as macaroni tiles). Orient one with one flat side faces left and the other faces the back. Locate the horizontal 1x2 of studs on top of the pot's rim at the front, then place the left end of the macaroni tile on the right stud. The right end of the tile should connect to the front stud of the vertical 1x2 of studs on the right side of the rim, and the tile's curved edge should follow the shape of the pot. Place the remaining three tiles symmetrically around the rim of the pot.

The pot is complete! The print instructions include the following remark: "Have you ever considered learning the art of growing bonsai trees? Jade plants grow quickly, are very accommodating and can easily be trimmed to your liking."

Set aside the pot while we build the jade plant.

Step 8

Open the next group of bricks and find a brown 2x2 round jumper.

Step 9

Next, find a brown 1x1 round brick and a brown 6L bar with stop ring. Orient the bar upright with the stop ring near the bottom, then insert it into the bar hole in the stud of the round jumper from above. Finally, take the 1x1 round brick and slide it down the bar until it connects with the jumper.

Step 10

Locate two brown 1x1 bricks with side stud on all sides. Take the first and push it onto the bar from above so the bar pokes through the top of the piece. Slide the brick all the way down and connect it to the round brick at the bottom of the part. Do similarly with the second piece but rotate it 45 degrees before sliding it down the bar. This will make our jade plant more interesting!

Step 11

Gather eight dark tan 1x1 round plates with hollow studs, eight brown 1x1 plates with bar, and eight dark green minifigure flat caps. Use the pieces to create eight of the following part:

Step 11.1

Orient a round plate with bar horizontally with the bar pointing left, then put a round plate with hollow stud on top.

Step 11.2

Take a minifigure flat cap and hold it horizontally so the brim of the cap is to the left. Place the cap on top of the round plate placed previously.

Step 11.3

Repeat the above steps until you have eight identical parts. Orient them all with the caps facing up, then add them to the model by inserting the bar end of each part into one of the bar holes in the side studs of the bricks placed in the previous step.

Step 12

Find a brown Technic pin connector with four clips, a dark grey 1L pin, and five dark green 1x1 round tiles. Use them to construct a part as follows:

Step 12.1

Insert the pin into the pin connector and orient the part so the stud faces up and the clips point to the front, back and sides.

Step 12.2

Place the first tile on the stud of the pin.

Step 12.3

Take another tile and clip it into the front clip of the pin connector. To do this, hold the tile slightly at an angle so that it slopes down toward you, then insert the tile into the clip before returning the tile to a flat orientation. This is an unusual technique! Then, clip the three remaining tiles to the other clips at the back and sides of the part. The small tiles represent smaller, younger leaves.

Step 12.4

Add the part to the plant by inserting the bar of the plant's trunk into the pin from below. Rotate the part in place so it is offset 45 degrees from the leaves below.

The print instructions include the following note from the designers: "Extra! Extra! Read all about it! Flat cap in a new color! To replicate the thick leaves of the jade plant, we used eight flat caps first seen in the Newspaper Kid Collectible Minifigure."

Step 13

The jade plant is complete and can be planted in its pot! Attach the plant to the pot by connecting the round jumper at the base of the plant to the middle 2x2 of studs in the pot.

Congratulations on completing the second tropical plant! You have now come to the end of the first bag of the set. The second bag contains all the parts needed to build the laceleaf.

Step 1

Open the second bag and collect the first group of bricks. Take a bright green 2x2 plate and a black 4x4 round brick and place the plate on the middle 2x2 studs of the round brick.

Step 2

Gather four light grey 1x1 plates with horizontal clips. Take one and orient it with the clip to the left, then connect it to the front left stud of the 2x2 plate. Orient the second with the clip in the rear and place it behind the first, then put the next to the right with the clip to the right and finally place the last clip on the front right stud of the 2x2 plate with the clip facing forward. The assembly should now have rotational symmetry.

Step 3

Find another bright green 2x2 plate and a tan 2x2 round plate. Place the 2x2 plate on top of the clips, then stack the round plate on top.

Step 4

Locate a white 2x2 plate with octagonal bar frame and a tan 2x2 round plate. Put the plate with bar frame on top of the pieces placed in the previous step, then put the round plate on top of the plate with bar frame. All these clips and bars provide the connection points necessary to attach the sides of the pot at angles!

Step 5

Find a red 2L axle and a dark grey 2x4 Technic plate with 3 pin holes. Orient the plate horizontally and connect the middle two columns to the round plate from the last step – the Technic plate should overhang the round plate by one column on both sides. Then, insert the 2L axle into the hole in the center of the Technic plate and push it in as far as you can. The axle helps to strengthen the structure.

Step 6

Get a dark brown 4x4 round plate and place it on top of the Technic plate so that the left and right sides of the plates are flush and the round plate overhangs to the front and back by one stud.

Step 7

Gather eight bright green 1x2 round plates, four white 1L bars with clips, and four dark orange 1x4 double-curved slopes. Use the pieces to create four of the following part:

Step 7.1

Take two 1x2 round plates and orient them horizontally. Place the second on top of the first.

Step 7.2

Orient a 1x4 slope horizontally and place its left two columns on the part. The slope should overhang the part to the right by two studs.

Step 7.3

Hold the part upright with the slope facing right and the round plates at the top. Take the 1L bar with clip and insert the bar into the bottom stud of the round plates, pushing it in as far as it will go. Ensure the clip is oriented so that a bar held by the clip would point toward you.

Step 7.4

Repeat the above steps until you have four identical parts. Now we can attach them to the main assembly. Locate the diagonal bars of the octagonal bar frame. Hold the parts upright with the clips at the top and clip each part to one of the diagonal bars, ensuring that they are positioned in the middle of the bars. The 4x4 round plate at the top of the assembly forces the parts to sit at an angle from the vertical with the 1x4 slopes angling inward to rest against the 1x4 round brick at the base.

Step 8

Next, we will construct four identical panels to place on the front, back and sides of the pot. Open the next group of bricks and collect four tan 2x4 plates, sixteen dark orange 2x2 curved slopes, and four light grey modified 2x3 plates with four studs and bar handle on the bottom (informally referred to as rocker plates). Use the pieces to create the panels as follows:

Step 8.1

Orient a 2x4 plate horizontally and a curved slope so that it slopes down and away from you. Connect the front row of the slope to the right two studs on the back row of the plate.

Step 8.2

Connect a second slope to the left and aligned with the first, then place the remaining two slopes symmetrically in front.

Step 8.3

Flip the piece over and attach a rocker plate to the left three columns in the middle of the part.

Step 8.4

Repeat the steps until you have four identical parts. To place the first panel, orient it upright with the slopes facing you and the bar of the rocker plate toward the bottom. Push the bar into the clip in the middle of the front of the pot assembly. The panel should be forced to angle forward slightly, as its sides will rest against the 1x4 double-slopes from the last step. Place the other three panels symmetrically on the back and sides of the pot.

With the bulk of the pot complete, we can now set the main assembly aside and focus on creating the rim and filling the pot with soil.

Step 9

Locate a black 4x4 plate and place a sand green 2x2 round tile on its central 2x2 studs.

Step 10

Gather four brown 2x2 modified plates with 1x2 side studs. Orient one with the side studs facing front and connect the back row of the modified plate under the middle two studs of the front row of the 4x4 plate. Place the other three modified plates symmetrically at the back and sides of the 4x4 plate.

Step 11

Take four tan 2x2 round plates. Place one in front of the 2x2 round tile in the center of the assembly, then place the others behind and to the left and right of the tile.

Step 12

Find four brown 1x1 round plates with 1L bar. Locate the front right corner stud of the 4x4 plate, to the right of the front 2x2 round plate, and place a bar plate on the stud with the bar at 45 degrees to the horizontal – in other words, the bar should point directly away from the center of the build. Place the remaining bar plates symmetrically at the other three corners of the assembly.

Step 13

Collect four brown 3x3 wedge plates. Orient the first with the right angle in the back left. Connect it so that the left column of studs covers the right column of the front 2x2 round plate and the back row covers the front row of the right 2x2 round plate. Place the others symmetrically around the assembly to create an octagon.

Step 14

Retrieve the next group of pieces and gather four dark orange 1x2 plates, eight dark orange 2x2 curved slopes, and four brown 2x2 modified plates with 1x2 side studs. Use the pieces to create four identical parts as follows:

Step 14.1

Orient a modified plate with the side studs facing you, then connect a 1x2 plate horizontally across the back row.

Step 14.2

Take a 2x2 curved slope and hold it horizontally curving down to the left. Connect its right column to the left column of the part. Place another curved slope symmetrically on the right of the part.

Step 14.3

Repeat the above steps until you have four identical parts. Orient one of the parts so the curved slopes face you and the side studs face up. Add it to the assembly by connecting the bottom row to the 1x2 side studs on the front of the assembly. Place the other symmetrically at the back, left and right of the assembly.

Step 15

To fill the gaps in the rim, we will build and place another four identical parts. Find four dark orange 1x2 plates, four dark orange 1x2 tiles, and four dark orange 1x2 modified bricks with single side stud.

Construct the parts as follows:

Step 15.1

Orient a 1x2 plate horizontally, then put a 1x2 modified brick on top with the side stud facing you.

Step 15.2

Place a 1x2 tile horizontally on top of the part.

Step 15.3

Repeat the above steps to obtain four of the part. To add the parts to the model, first locate the bars that stick out from the assembly between the curved sections placed previously. Insert a bar into the side stud of a part and push it all the way in. Do similarly with the other parts to fill the gaps in the rim.

Step 16

Find four dark tan 4x4 round corner tiles (otherwise known as 4x4 macaroni tiles). Orient the first so it curves back from left to right and place its left end on the front right stud of the rim and its right end on the front left stud of the rim. Place the remaining three tiles symmetrically around the top of the assembly.

Step 17

The rim is now complete, and we can connect the top and bottom to complete the pot. Retrieve the lower section and place the rim of the pot on top so that the central 4x4 underneath the rim connects to the 4x4 round plate on top of the lower section.

Well done for completing the pot! Now we can focus on building its intended inhabitant: the laceleaf.

Step 18

Locate three brown 2x2 round jumpers and a red 1x1 tile with ladybug printing. Place the first jumper one row in from the back of the pot and to the left of the center, then put the second to the right of the first. Place the third jumper in front and one column to the right of the first jumper so that the three round jumpers form a triangle. To the right of the front jumper, add the ladybug tile. The designers explain its presence in a note: "Laceleaves are susceptible to pests like aphids and spider mites, so having a hungry ladybug in the pot is a good way to keep your plant healthy."

Step 19

Open the final group of bricks for the second bag. Gather two bright green 3L bars, two bright green minifigure weapon hilts, and a green 1x2 round plate. Use the pieces to construct a stem for a laceleaf as follows:

Step 19.1

Hold a 3L bar and a weapon hilt upright, then insert the top of the bar into the bottom stud of the weapon hilt.

Step 19.2

Insert the other bar into the top stud of the weapon hilt. Orient the 1x2 round plate horizontally and insert the top bar into the left stud from below. Push the plate down until it connects with the stud of the weapon hilt.

Step 19.3

Hold the second weapon hilt upright and insert the top of the stem into the hilt's bottom stud.

Step 19.4

Add the stem to the model by inserting the bottom bar of the stem into the stud in the center of the back right round jumper. Turn the round plate so that it points towards the front-right, at 45 degrees to the horizontal.

Step 20

Find a bright green 3L bar, a bright green minifigure weapon hilt, and a green 1x2 round plate. Use them to create a second, shorter stem as follows:

Step 20.1

Hold the bar and the weapon hilt upright, then insert the top end of the bar into the bottom stud of the hilt.

Step 20.2

Orient the round plate horizontally and insert the bar of the stem into the right stud of the plate from above. Slide the plate up the bar until it touches the hilt.

Step 20.3

Add the stem to the model by inserting the bar into the stud in the center of the left round jumper, to the left of the taller stem.

The print instructions feature the following fun fact: "You may also know laceleaf (or Anthurium) by one of its many other names, for example, flamingo flower or painter's palette. We love the abundance of alliteration here!"

Step 21

Next, we will build a very small laceleaf flower to contrast against the two larger, more mature flowers which we will add later. Set the main model aside for the time being and gather the following pieces: a red 2x2 round jumper plate, a yellowish green horn, two bright green 1x1 round tiles with vertical bars, a green 1L bar with angled hollow stud, and a bright green minifigure weapon hilt. Construct the small laceleaf as follows:

Step 21.1

Collect a 1x1 tile with bar and the weapon hilt. Insert the tile's bar into one end of the weapon hilt, then orient the resulting part upright with the tile at the bottom.

Step 21.2

Take the 1L bar with angled hollow stud and insert the bar into the top stud of the weapon hilt so that the angled stud faces right. Then, take a tile with bar and insert the bar into the angled hollow stud.

Step 21.3

Find the 2x2 round jumper and connect the stud to the tile with bar from the previous step.

Step 21.4

Take the horn and insert the bar end into the middle of the round jumper. Twist the horn in place until it curves down slightly, as if this part of the flower is being pulled down by gravity.

Step 21.5

The small laceleaf is now complete! Orient it so that the flower faces forward, then add it to the pot by connecting the round tile at the base of the stem to the front round jumper.

Step 22

Next, we will build up some foliage for the large laceleaves! Collect two bright green twigs, two green 1L bars with angled hollow studs, and four green 1x2 round plates with leaf. (These last pieces have a 1x2 of studs at one end, then a long, gently curving leaf at the other end.) Use them to create two of the following part:

Step 22.1

Take two of the plant plates and orient one horizontally with the studs to the right and the other vertically with the studs in front. Place the front stud of the vertical plate on the right stud of the horizontal plate, then swing the vertical leaf to the right as far as you can to create an angle of roughly 30 degrees between the pieces.

Step 22.2

Reorient the part so that the studs face directly away from you, with the nearer leaf plate horizontal and the antistuds to the right. The other leaf plate should point down and to the left

Take a 1L bar with angled stud and connect the stud to the rightmost antistud of the part, under where the plant plates are attached. Rotate the piece in place so the bar angles down and to the left roughly 45 degrees.

Step 22.3

Return the part to its original orientation with the studs facing up and the bottom plant plate pointing left. Pick up a twig piece and insert the bar into the rightmost stud of the part, pushing it in as far as it will go. The twig pins the pieces together, strengthening the connections between them.

Step 22.4

Repeat the above steps to obtain two identical parts. Add the foliage to the model by inserting the angled bars into the free studs of the 1x2 round plates on the two back stems.

Step 23

Finally, we can build the flowers! Gather the following pieces: two lime green 1x1 round plates, eight light yellow 1x1 flower studs, two bright green 1x1 round tiles with bars, two green 1L bars with angled hollow studs, two bright green 2x2 round plates, four red short cattle horns, four red 1x1 modified tiles with clip, two red 1x2 half-round jumper plates, and two red clam shells with 2x2 studs. Use them to create two of the following part:

Step 23.1

Orient a clam shell horizontally with the shell part to the right, then connect a 2x2 round plate under the 2x2 of studs. The designers have included the following note: "To capture the iconic ridged flower of the laceleaf, we used clam shell elements in a new color."

Step 23.2

Next, collect two 1x1 clip tiles and a 1x2 half-round jumper. Orient the jumper vertically with the round side to the right and connect it to the right column of the 2x2 of studs. Then, orient the clip tiles so that a bar clipped into the parts would point toward you, and place them on the left column of studs.

Step 23.3

Find two short cattle horns. Orient the first with the bar facing you and the horn pointing right and push the bar into the rear clip. Connect the second horn symmetrically to the front clip.

Step 23.4

Flip the part over so the anti-studs face up and the shell lies to the left. Take a 1x1 round plate and insert its stud into the center of the 2x2 round plate.

Step 23.5

Take a bar with angled stud and insert the bar into the 1x1 round plate from the previous step, then twist the stud around to face right. Connect a bar tile to the stud.

Step 23.6

Flip the part back over so the stud of the half-round jumper faces up and the clam shell lies to the right. Take four 1x1 flower plates and stack them to form a column. Then, put the column on the stud of the half-round jumper.

Step 23.7

Repeat the above steps once more to obtain a second flower. Finally, attach the flowers to the tops of the stems by inserting the bar of the bar tile on the back of each flower into the top stud of each stem. Orient the flowers so that they face the same direction as their respective foliage.

Well done completing the laceleaf! The different heights of the three stems and flowers in this pot bring a pleasing variety and verticality to the build, and the inclusion of the ladybug is a lovely nod to the needs of this beautiful plant.

You have reached the end of bag two and have completed the trio of tropical plants! The false shamrock, jade plant and laceleaf display well together and separately.

Bags 3 and 4 contain the parts to build the next trio of plants: the carnivorous plants. The carnivorous plants have their own booklet of print instructions which begins with an introduction: "Carnivorous plants: These plants have developed the most cunning ways to lure in and trap their prey. With snares, pitfalls, adhesives, snap traps and other curious contraptions, these captivating creations almost seem like hybrids between flora and fauna. Over 600 different known species can gobble up a veritable buffet of gullible animals, from insects and larvae to crustaceans and even smaller mammals!"

Opposite the introduction are captioned images of the three plants represented in the trio of carnivorous plants. The first is the Venus flytrap, a plant that looks unnervingly like the jaws of a dangerous beast. It has pairs of semicircular, bright green leaves, between which lie interlocking needlelike teeth and a pink, fleshy 'mouth'. The caption reads: "Venus flytrap (*Dionaea muscipula*): Native to North Carolina and South Carolina in the United States."

The second plant is the red sundew. The sundew has bright red leaves similar in shape to the end of a spoon, rimmed with hundreds of tiny, spiky red hairs which glisten as though covered in dew. In reality, they are covered with droplets of sticky liquid which ensnare their unwitting prey. A thin red stem rises high above the dangerous leaves, at the end of which is a tiny flower – it pays not to eat your pollinators! The caption reads: "Red sundew (*Drosera breviflora*): Native to the south-eastern United States."

The third and final plant is the yellow pitcher plant. The pitcher plant is a tall, tubular plant with a green base that gets progressively more yellow as it rises, and is veined with deep red. At the top is a lip like that of a pitcher, and above it is a broad leaf that acts as an umbrella, keeping the pitcher plant from filling with rainwater. The inside of the pitcher is covered with a slippery coating so that unknowing insects fall straight down into the pool of digestive juices at the bottom. The caption reads: "Yellow pitcher plant (*Sarracenia flava*): Native to the south-eastern United States."

The first plant in the trio of carnivorous plants is the famed Venus flytrap. We begin, as before, by constructing a small pot followed by the plant itself.

Open bag 3 and collect the first group of bricks.

Step 1

Take a dark orange half-barrel piece and a light grey round 2x2 brick. Connect the round brick to the 2x2 of studs inside the barrel.

Step 2

Next, find a red 2x2 round tile with pinhole and a black 2L axle with 1L pin. Place the round tile on top of the round brick, then insert the axle end of the axle with pin and push it all the way into the model. The pin will stick out of the top of the pot.

Step 3

Locate a dark orange Technic wheel and orient it with the wide rim facing up. It should feel a little like a bowl, with a hexagon of pin holes in the middle. Align the pin with the central pinhole of the Technic wheel and push them together so they connect.

Step 4

Collect two dark grey 1L pins. Locate the pinholes on each side of the center pinhole and insert a pin into each hole.

Step 5

Find a dark tan 4x4 round plate. Place the plate in the pot and press it into place – it should connect to the studs on the ends of the pins placed in the previous step. (If it is not connecting, rotate the plate a little and try again.)

Step 6

Locate two dark tan 1x2 jumper plates and orient them vertically. Place the first on the middle two studs of the second column from the left of the 4x4 round plate, then put the second jumper plate to the right of the first.

The print instructions include the following information: “The Venus flytrap has sensor hairs around its two leaves that trigger its trap; when an insect touches the hairs, it will cause the jaws to close and capture the prey inside.”

Step 7

Open the second bag of pieces, then find two lime 1x1 round plates with upright leaf. Place the first on the stud of the left jumper and angle it so that the leaf overhangs to the front left, then place the second on the right jumper so the leaf overhangs to the back right. In other words, the leaf on the left should face southwest and the leaf on the right should face northeast.

Step 8

Collect a lime 1x2 round plate and place it horizontally across the studs of the upright leaf plates, securing them in place.

Step 9

Take two 1L bars with clips and hold them vertically with the clip at the top. Insert the bars into the studs of the 1x2 round plate placed in the last step and push them all the way in. Make sure that the clips are oriented so that a bar held by either clip would point toward you.

Step 10

Finally, we will construct the famous jaws of the flytrap! Gather two magenta 2x2 round plates with rounded bottoms, two green 1x1 round plates with bar handle, six lime 1x1 quarter round tiles. And two lime 2x2 cake frosting pieces. (The cake frosting pieces have a 2x2 of studs on top and a drippy edge, like runny cake frosting.) Use them to make two of the following part:

Step 10.1

Take a cake frosting piece and orient it studs-down, then find a 2x2 round plate with rounded bottom and connect it to the anti-studs of the frosting piece.

Step 10.2

Flip the part upright so the studs face up. Collect three quarter round tiles. Orient one with the right-angled corner in the front right and place it on the left rear stud of the part. Orient the second with the right-angled corner in the front left and place it on the back right stud. Orient the last tile with the right-angled corner in the back left and place it on the front right stud.

Step 10.3

Take a 1x1 round plate with bar handle and place it on the remaining stud of the part. Angle the bar handle 45 degrees so that it points to the front left.

Step 10.4

Repeat the steps to obtain a second part. Connect the first part to the model by orienting it upright with the stud facing left and the bar handle pointing down, then push the bar handle into the left clip. Swing the part slightly to the left, then connect the second part symmetrically to the right clip. The jaws can be posed open or shut – it's up to you!

The designers include the following information about the set: "Does the piece used for the jaws of the flytrap remind you of anything? The element was originally designed as icing for a cake. This is the first time it has been used in lime green."

Fantastic work, you have completed the Venus flytrap! Next up is the red sundew, which captures its prey with its sticky red leaves.

Step 1

Collect the next group of parts and find two dark orange 2x4 plates and a dark tan 4x4 round plate. Orient the 2x4 plates horizontally. Place the first on the front two rows of the round plate, then place the second on the back two rows.

Step 2

Find two dark grey modified 1x4 bricks with 1x4 side studs and two black 1x2 bricks with log profile. Orient the 1x2 bricks horizontally. Put one on the middle two studs of the front row and put the other on the middle two studs of the back row, leaving an empty 2x2 of studs between them. Next, orient a 1x4 brick vertically with the side studs facing left and place it on the left column of the part. Place the second 1x4 symmetrically on the right.

Step 3

Gather four light grey modified 1x2 bricks with 2x2 side studs, then collect two red modified 1x2 bricks with 2x2 side studs from the next group of parts. Orient the first two grey bricks with the side studs facing forward and place them on the front row of studs, then place the other two grey bricks symmetrically on the back row. Next, orient a red brick vertically with the side studs facing left and place it on the middle two studs of the left column. Connect the second red brick symmetrically to the model's right column.

Step 4

Open the next group of pieces. Take a dark tan 4x4 round plate and put it on top of the model, covering the hollow center.

Step 5

Now we will construct the sides of the pot. Gather the following pieces: four dark orange 2x2 curved slopes, two dark orange 2x2 modified tiles with 1x2 studs, two dark orange 3x4 triple-curved wedges, and two brown 2x2 modified plates with 1x2 side studs. Use the pieces to make two of the following part:

5.1. Take a 2x2 modified plate and orient it with the side studs facing right.

Step 5.2

Orient a 2x2 modified tile vertically with the studs to the right and connect it to the left column of the modified plate.

Step 5.3

Find a 2x2 curved slope and position it so it slopes down toward you, then put its back row on the front row of the part. Place the second 2x2 curved slope symmetrically behind the first.

Step 5.4

Hold the triple-curved wedge vertically with the inset studs to the right. Connect the part's left end to the studs of the wedge.

Step 5.5

Repeat the above steps to obtain a second part. Now we can attach them to the model – hold one of the parts upright with the curved surfaces facing left and the studs at the top. Align the bottom of the triple-curved wedge with the 1x4 of side studs on the left side of the pot, then press the part into place. The top of the part will sit higher than the 4x4 round plate in the middle of the pot. Place the second part symmetrically on the right side of the pot.

Step 6

Gather the following parts: four dark orange 2x2 curved slopes, two dark orange 2x2 modified tiles with 1x2 studs, two dark orange 3x4 triple-curved wedges, four dark orange 1x2 rail plates, and two brown 2x2 modified plates with 1x2 side studs. Use them to create two of the following part:

Step 6.1

Orient a 2x2 modified plate with the side studs facing right.

Step 6.2

Take a modified tile and hold it vertically with the studs on the right, then connect its right column to the left column of the modified plate.

Step 6.3

Orient a 2x2 curved slope so it curves down in front, then place the back row of the piece on the front row of studs. The smooth section of the tile should stick out to the left. Place the second symmetrically behind the first.

Step 6.4

Take a rail plate and hold it horizontal with the rail in front. Connect it under the overhang of the front curved slope. Place the second symmetrically at the rear.

Step 6.5

Position the triple-curved wedge vertically with the inset studs to the right. Connect the modified tile's overhang to the inset column of studs.

Step 6.6

Repeat the above steps to obtain a second part. To add the first part to the model, first orient it upright with the curved surface facing you and the studs at the top, then place it on the front side studs so that the top of the part is flush with the sides of the pot. The rail plates should sit against the sides of the pot, closing any gaps that might be present. Place the second part symmetrically at the rear of the pot.

Step 7

Collect four dark orange 3x3 round corner tiles (colloquially known as macaroni tiles). Orient one with one flat side faces left and the other faces the back. Locate the horizontal 1x2 of studs on top of the pot's rim at the front, then place the left end of the macaroni tile on the right stud. The right end of the tile should connect to the front stud of the vertical 1x2 of studs on the right side of the rim, and the tile's curved edge should follow the shape of the pot. Place the remaining three tiles symmetrically around the rim of the pot.

With the pot complete, we can now build its inhabitant – the red sundew! The print instructions feature the following information on the red sundew: "This carnivorous plant uses thousands of tiny hairs, each tipped with a bead of sticky liquid, to trap its prey. Once the insect is stuck to the leaves, they will curl inwards around the unsuspecting little bug."

There should be a single dark pink 1x1 round plate with hollow stud left over from the previous group – keep it to one side, as you will need it for an upcoming step.

Step 8

Retrieve the next group of pieces, then find a brown 2x2 round jumper and a brown 2x2 round plate with 4 upright bars. Place the plate in the middle of the pot, then put the jumper on the plate's studs.

Step 9

Set aside the pot for a moment while we build part of the sundew. Locate a brown 1x1 brick with side studs on all four sides and a dark red 2x2 round plate. Place the round plate on top of the brick so that the axle hole in the plate aligns with the hollow stud on top of the brick.

Step 10

Collect the dark pink 1x1 round plate with hollow stud that was set to the side earlier, and also a red 6L bar with stop ring. Hold the bar upright with the stop ring toward the top and insert it into the axle hole in the center of the 2x2 round plate. Push the bar down until its end is flush with the base of the brick. Then, slide the round plate onto the top of the bar and push it down until it meets the stop ring.

Step 11

Next, gather four dark red minifigure hairbrush accessories. Orient them with the bristles upright. Take one and insert the bar end into one of the side studs of the 1x1 brick at the base of the assembly. Place the others likewise around the base.

Step 12

Find three pink minifigure epaulets and a yellow 1x1 round plate with hollow stud – the yellow plate is the one which is not stacked, and the minifigure epaulets are small parts with rounded ends and hole in the center which is the same width as a stud. Hold the first epaulette upside-down, then balance it on the round plate at the top of the bar. The piece should sit loosely on the stud of the round plate. Balance the other epaulets similarly, placing them at an angle to the first so that they form a hexagonal arrangement. Then, orient the yellow round plate upside-down and slide it on to the top of the bar, pinning the epaulets in place. The trio of epaulets make for a convincing pink flower, with the round plate forming its yellow center. The flower sits atop a tall red stem, keeping it far from the sticky bristles of its leaves below – a good idea if the sundew wants to keep its food and its pollinators separate!

Step 13

Most of the sundew is now complete! Add it to the pot by rotating it 45 degrees and connecting the 1x1 brick at the base to the round jumper in the middle of the pot.

The designers include the following comment: “Pink epaulets make the leaves of the sundew flower, a first in this color. If you happen to have a Captain Red Beard minifigure, you could turn him into Captain Pink Beard.”

Step 14

To finish the sundew, we need to add a few more leaves. Collect the following parts: four dark tan 1x1 round plates with hollow studs, four dark red 1x1 modified tiles with clips, and four dark red minifigure hairbrush accessories. Note that the 1x1 plates have been stacked to make them easy to identify. Use them to create four of the following part:

Step 14.1

Take a 1x1 round plate and place a clip tile on top.

Step 14.2

Connect the handle of a hairbrush to the clip with the bristles facing up.

Step 14.3

Repeat the above steps until you have four identical parts. Orient the first part so that the bristly end of the brush is in front, then locate the upright bar in front of the flower. Place the part by connecting the hollow stud under the part to the upright bar. Place the other three parts symmetrically at the back, left and right of the model.

You have now completed the red sundew! The sundew has an array of dark red, hairy leaves at its base and a tall red stem topped with a pink flower. The bristles of the hairbrush pieces are perfect for representing the hairy, sticky leaves of the sundew!

With that, we have come to the end of bag 3. Bag 4 contains the pieces to build the final member of the trio of carnivorous plants: the yellow pitcher plant.

Step 1

Open bag 4 and retrieve the first group of pieces. Take a red 2x2 plate and a black 4x4 round brick and place the plate on the middle 2x2 studs of the round brick.

Step 2

Gather four light grey 1x1 plates with horizontal clips. Take one and orient it with the clip to the left, then connect it to the front left stud of the 2x2 plate. Orient the second with the clip in the rear and place it behind the first, then put the next to the right with the clip to the right and finally place the last clip on the front right stud of the 2x2 plate with the clip facing forward. The assembly should now have rotational symmetry.

Step 3

Find another red 2x2 plate and a tan 2x2 round plate. Place the 2x2 plate on top of the clips, then stack the round plate on top.

Step 4

Locate a white 2x2 plate with an octagonal bar frame and a tan 2x2 round plate. Put the plate with bar frame on top of the pieces placed in the previous step, then put the round plate on top of the plate with bar frame.

Step 5

Find a red 2L axle and a dark grey 2x4 Technic plate with 3 pin holes. Orient the plate horizontally and connect the middle two columns of the plate to the round plate from the last step – the Technic plate should overhang the round plate by one column on both sides. Then, insert the 2L pin into the hole in the center of the Technic plate and push it in as far as you can.

Step 6

Get a dark brown 4x4 round plate and place it on top of the Technic plate so that the left and right sides of the plates are flush and the round plate overhangs to the front and back by one stud.

Step 7

Gather eight red 1x2 round plates, four white 1L bars with clips, and four dark orange 1x4 double-curved slopes. Use the pieces to create four of the following part:

Step 7.1

Take two 1x2 round plates and orient them horizontally. Place the second on top of the first.

Step 7.2

Orient a 1x4 slope horizontally and place its left two columns on the part. The slope should overhang the part to the right by two studs.

Step 7.3

Hold the part upright with the slope facing right and the round plates at the top. Take the 1L bar with clip and insert the bar into the bottom stud of the round plates, pushing it in as far as it will go. Ensure the clip is oriented so that a bar held by the clip would point toward you.

Step 7.4

Repeat the above steps until you have four identical parts. Now we can attach them to the main assembly. Locate the diagonal bars of the octagonal bar frame. Clip each part to one of the diagonal bars, ensuring that they are positioned in the middle of the bars. The 4x4 round plate at the top of the assembly forces the parts to sit at an angle from the vertical with the 1x4 slopes angling inward to rest against the 1x4 round brick at the base.

Step 8

Next, we will construct four identical panels to place on the front, back and sides of the pot. Open the next group of parts and collect four tan 2x4 plates, sixteen dark orange 2x2 curved slopes, and four light grey modified 2x3 plates with four studs and bar handle on the bottom (informally referred to as rocker plates). Use the pieces to create the panels as follows:

Step 8.1

Orient a 2x4 plate horizontally and a curved slope so that it slopes down and away from you. Connect the front row of the slope to the right two studs on the back row of the plate.

Step 8.2

Connect a second slope to the left and aligned with the first, then place the remaining two slopes symmetrically in front.

Step 8.3

Flip the piece over and attach a rocker plate to the left three columns in the middle of the part.

Step 8.4

Repeat the steps until you have four identical parts. To place the first panel, orient it upright with the slopes facing you and the bar of the rocker plate toward the bottom. Push the bar into the clip in the middle of the front of the pot assembly. The panel should be forced to angle forward slightly, as its sides will rest against the 1x4 double-slopes from the last step. Place the other three panels symmetrically on the back and sides of the pot.

Set aside the assembly as we build the pot's rim.

Step 9

Locate a black 4x4 plate and place a sand green 2x2 round tile on its central 2x2 studs.

Step 10

Gather four brown 2x2 modified plates with 1x2 side studs. Orient one with the side studs facing front and connect the back row of the modified plate under the middle two studs of the front row of 4x4 plate. Place the other three modified plates symmetrically at the back and sides of the 4x4 plate.

Step 11

Take four tan 2x2 round plates. Place one in front of the 2x2 round tile in the center of the assembly, then place the others behind and to the left and right of the tile.

Step 12

Find four brown 1x1 round plates with 1L bar. Locate the front right corner stud of the 4x4 plate, to the right of the front 2x2 round plate, and place a bar plate on the stud with the bar at 45 degrees to the horizontal – in other words, the bar should point directly away from the center of the build. Place the remaining bar plates symmetrically at the other three corners of the assembly.

Step 13

Collect four dark tan 3x3 wedge plates. Orient the first with the right angle in the back left. Connect it so that the left column of studs covers the right column of the front 2x2 round plate and the back row covers the front row of the right 2x2 round plate. Place the others symmetrically around the assembly to create an octagon.

Step 14

Retrieve the third group of parts and gather four dark orange 1x2 plates, eight dark orange 2x2 curved slopes, and four brown 2x2 modified plates with 1x2 side studs. Use the pieces to create four identical parts as follows:

Step 14.1

Orient a modified plate with the side studs facing you, then connect a 1x2 plate horizontally across the back row.

Step 14.2

Take a 2x2 curved slope and hold it horizontally curving down to the left. Connect its right column to the left column of the part. Place another curved slope symmetrically on the right of the part.

Step 14.3

Repeat the above steps until you have four identical parts. Orient one of the parts so the curved slopes face you and the side studs face up. Add it to the assembly by connecting the bottom row to the 1x2 side studs on the front of the assembly. Place the other symmetrically at the back, left and right of the assembly.

Step 15

To fill the gaps in the rim, we will build and place another four identical parts. Find four dark orange 1x2 plates, four dark orange 1x2 tiles, and four dark orange 1x2 modified bricks with single side stud. Construct the parts as follows:

Step 15.1

Orient a 1x2 plate horizontally, then put a 1x2 modified brick on top with the side stud facing you.

Step 15.2

Place a 1x2 tile horizontally on top of the part.

Step 15.3

Repeat the above steps to obtain four of the part. To add the parts to the model, first locate the bars that stick out from the assembly between the curved sections placed previously. Insert a bar into the side stud of a part and push it all the way in. Do similarly with the other parts to fill the gaps in the rim.

Step 16

Find four dark tan 4x4 round corner tiles (otherwise known as 4x4 macaroni tiles). Orient the first so it curves back from left to right and place its left end on the front right stud of the rim and its right end on the front left stud of the rim. Place the remaining three tiles symmetrically around the top of the assembly.

Step 17

The rim is now complete, and we can connect the top and bottom to complete the pot. Retrieve the lower section and place the rim of the pot on top so that the central 4x4 underneath the rim connects to the 4x4 round plate on top of the lower section.

Well done for completing the pot! Now we can build the yellow pitcher plant.

Step 18

Open the final group of parts and collect four dark tan 2x2 round jumpers. Locate the studded surface representing the soil in the pot, then find the 2x2 of studs that lie one row back from the front and one column in from the right side of the pot. Place the first jumper here, then put the next directly behind it. Place the remaining two jumpers to the left of the first two. The studs on the jumpers should form a square.

Step 19

Gather four bright green 1x1 round tiles with upright bars. Place one on the stud of each of the round jumpers placed in the previous step.

The print instructions feature the following fun fact: "Nothing is more refreshing than a pitcher of digestive enzymes! The cups of these plants are filled with digestive juices to break down the unfortunate insects that fall in. To prevent accidental activations, two sensor hairs need to be triggered before the trap closes."

Step 20

Find four bright green candlestick elements and orient them upright with the bar at the top. Place one each on the back left and front right 1x1 tiles placed in the previous step. Then, make a part by connecting the remaining two candlesticks together to form a longer stick, then connect it to the back right 1x1 tile. The candlesticks will form the stems of the pitcher plants.

Step 21

Next we will build the pitchers themselves! Gather the following pieces: four transparent clear 1x1 round plates, eight yellowish green 1x1 round plates with bar handle, four yellowish green minifigure explorer helmets, four red droid arms, and four lime broom heads. Use them to make four of the following part:

Step 21.1

Take a broom head and hold it upside-down so the stud faces the ground and the broom curves to the left. Get a 1x1 round plate with bar handle and connect it upside-down to the end of the broom piece with the bar handle to the left.

Step 21.2

Find an explorer helmet and connect it upside-down to the anti-stud of the round plate, then take a 1x1 round plate and place it upside-down in the helmet.

Step 21.3

Next, take a droid arm and hold it upright with the elbow to the right. Clip it to the bar handle in the middle of the part.

Step 21.4

Collect a round plate with bar handle and orient it upright with the stud facing left and the bar handle at the bottom. Clip it into the top of the droid arm, then tilt it to the right so it leans against the helmet.

Step 21.5

Repeat the above steps until you have four identical parts. Retrieve the pot and orient it at 45 degrees to the horizontal so the stems form a diamond with the tallest stem at the back. Then, orient one of the pitchers with the droid arm in the rear and connect it to the tallest stem by inserting the bar at the top of the stem into the stud at the bottom of the part. Place the second part on the left stem with the droid arm to the left, then add the third part symmetrically to the right stem. Finally, place the last part on the front 1x1 tile with upright bar so that the droid arm lies to the left. Feel free to alter how the plants are positioned.

The booklet ends with one last fun fact: "Surprisingly, the leaf that grows above the pitcher cannot move and seal the pitcher. Instead, it prevents rain from entering and diluting the liquid within."

You have completed the yellow pitcher plant, and with it, bag 4 and the trio of carnivorous plants!

Bags 5 and 6 contain the pieces for the final trio of plants: the arid plants. The arid plants have their own booklet of print instructions, which begins with the following introduction: "Arid or desert plants are some of the toughest species you will find. They have evolved to survive in climate zones with harsh winds, intense heat and only very sporadic precipitation. They typically store what little moisture they can attract in plump pods and save it for... well, not a rainy day, but long dry spells instead. Radiant flowers help them attract pollinators, giving them an edge over any competition in their surroundings."

On the page opposite the introduction are photographs of the three plants comprising the trio of arid plants. The photos are accompanied by short captions providing information on their native ranges. The first plant is Britton's Liveforever (*Dyudleya brittonii*), a succulent with concentric layers of thick, light-blue leaves that end in purple spikes. The leaves are arranged like plates of armor, protecting the center of the plant. The caption reads: "A succulent native only to Baja California, Mexico."

The second arid plant is the eastern prickly pear (*Opuntia humifusa*). This cactus looks as though several thick ovals have been randomly attached to one another and covered in small clumps of spines. The picture shows a prickly pear in flower, with a trio of delicate yellow blooms growing from the top of an oval leaf. The caption says: "Eastern prickly pear: A cactus native to large parts of the eastern United States and north-eastern Mexico."

The final plant in the trio is the pincushion cactus (*Mammillaria crinita* f. *zeilmanniana*), which gets its name from its appearance: each plant is roughly spherical and covered in tiny spines that look like fuzz, combined with much larger, longer spikes that protrude like pins. The picture shows a pincushion cactus in flower, with a smattering of tiny pink flowers strewn randomly across its body. The caption reads: "Native to Mexico, and areas in the southwestern United States, the Caribbean and South America."

The fifth bag of the set contains the parts to build Britton's Liveforever and the eastern prickly pear. Let's get building!

Step 1

Open bag number five and retrieve the first group of parts. First, we will build a pot for Britton's Liveforever. Take a dark orange half-barrel piece and a light grey round 2x2 brick. Connect the round brick to the 2x2 of studs inside the barrel.

Step 2

Next, find an orange 2x2 round tile with pinhole and a black 2L axle with 1L pin. Place the round tile on top of the round brick, then insert the axle end of the axle with pin and push it all the way into the model. The pin will stick out of the top of the pot.

Step 3

Locate a dark orange Technic wheel and orient it with the wide rim facing up. It should feel a little like a bowl, with a hexagon of pin holes in the middle. Align the pin with the central pinhole of the Technic wheel and push them together so they connect.

Step 4

Take two dark grey half-pins and orient them upright with the studs at the top. Insert them into the pinholes on either side of the pot's center so that they form a straight line through the center.

Step 5

Collect a tan 2x2 round plate and a tan 4x4 round plate. Place the 4x4 plate in the pot, connecting it to the studs of the half-pins placed previously. If it does not want to connect, rotate it slightly and try again until it connects. Then, put the 2x2 round plate in the middle of the 4x4 plate.

Step 6

Gather four yellowish green 1x1 round tiles with upright bar. Place one on each of the four studs of the 2x2 round plate placed previously.

A note in the print instructions relays the following interesting fact: "this colorful succulent was named after Nathaniel Lord Britton, an American botanist who first categorized the *Dudleya* genus."

Step 7

Now we can build the succulent itself! Find the following pieces: one light aqua 1x1 round flower plate, four lavender 1x1 plates with tooth, four medium lavender 1x1 round plates with three leaves, and one light blue 2x2 round brick with four leaves. Assemble the succulent as follows:

Step 7.1

Take the 2x2 round brick with leaves and place it in front of you.

Step 7.2

Collect a lavender 1x1 plate with tooth and orient it vertically with the tooth toward you. Place the plate on the front left stud of the round brick. Then, take a second tooth plate and orient it horizontally with the tooth to the right and place it on the front right stud. Orient the third tooth vertically with the tooth in the rear and put it on the back right stud, then place the final tooth plate horizontally on the back left stud with the tooth facing left.

Step 7.3

Gather the four medium lavender plates with three leaves. Place the first on the front right stud with the leaves facing out from the center, then place the remaining leaf plates symmetrically on the other three studs.

Step 7.4

Flip the succulent upside down so that the anti-studs of the round brick with leaves face up. Take the 1x1 flower plate and insert the stud into the tube in the middle of the round brick.

Step 7.5

We can now pot up the succulent! Add it to the pot by inserting the upright bars in the middle of the pot into the hollow studs of the plant plates at the bottom of the succulent.

You have completed Britton's Liveforever – well done! The print instructions include the following remark on the parts used in its construction: "To capture a nice gradient of spiky leaves, we added a new color for the 1x1 plate with a tooth. So, if you have any Lego animals in your house, you could always give them lovely lavender teeth."

The second in the trio of arid plants is the eastern prickly pear. As before, we will first build a pot, then add the cactus.

Step 1

Collect the next group of pieces and take out two dark orange 2x4 plates and a tan 4x4 round plate. Orient the 2x4 plates vertically. Place the first on the left two columns of the round plate, then place the second on the left two rows.

Step 2

Find two dark grey modified 1x4 bricks with 1x4 side studs and two black 1x2 bricks with log profile. Orient the first 1x4 brick horizontally with the side studs facing front and put it on the front row of the part. Place the second symmetrically on the back row. Next, orient the 1x2 bricks vertically. Place the first on the rightmost column of the part, between the 1x4 bricks, then place the second similarly on the leftmost column.

Step 3

Gather four light grey modified 1x2 bricks with 2x2 side studs, then collect two yellow modified 1x2 bricks with 2x2 side studs from the next group of parts. Orient the first two grey bricks with the side studs facing left and place them on the left column of studs, then place the other two grey bricks symmetrically on the right column. Next, orient a yellow brick horizontally with the side studs facing you and place it on the middle two studs of the front row. Connect the second yellow brick symmetrically to the back row.

Step 4

Retrieve the next group of bricks and take a tan 4x4 round plate and put it on top of the model, covering the hollow center.

Step 5

Now we will construct the sides of the pot. Gather the following pieces: four dark orange 2x2 curved slopes, two dark orange 2x2 modified tiles with 1x2 studs, two dark orange 3x4 triple-curved wedges, and two brown 2x2 modified plates with 1x2 side studs. Use the pieces to make two of the following part:

5.1. Take a 2x2 modified plate and orient it with the side studs facing right.

Step 5.2

Orient a 2x2 modified tile vertically with the studs to the right and connect it to the left column of the modified plate.

Step 5.3

Find a 2x2 curved slope and position it so it slopes down toward you, then put its back row on the front row of the part. Place the second 2x2 curved slope symmetrically behind the first.

Step 5.4

Hold the triple-curved wedge vertically with the inset studs to the right. Connect the part's left end to the studs of the wedge.

Step 5.5

Repeat the above steps to obtain a second part. Now we can attach them to the model – hold one of the parts upright with the curved surfaces facing you and the studs at the top. Align the bottom of the triple-curved wedge with the 1x4 of side studs on the front of the pot, then press the part into place. The top of the part will sit higher than the 4x4 round plate in the middle of the pot. Place the second part symmetrically on the back of the pot.

Step 6

Gather the following parts: four dark orange 2x2 curved slopes, two dark orange 2x2 modified tiles with 1x2 studs, two dark orange 3x4 triple-curved wedges, four dark orange 1x2 rail plates, and two brown 2x2 modified plates with 1x2 side studs. Use them to create two of the following part:

Step 6.1

Orient a 2x2 modified plate with the side studs facing right.

Step 6.2

Take a modified tile and hold it vertically with the studs on the right, then connect its right column to the left column of the modified plate.

Step 6.3

Orient a 2x2 curved slope so it curves down in front, then place the back row of the piece on the front row of studs. The smooth section of the tile should stick out to the left. Place the second symmetrically behind the first.

Step 6.4

Take a rail plate and hold it horizontal with the rail in front. Connect it under the overhang of the front curved slope. Place the second symmetrically at the rear.

Step 6.5

Position the triple-curved wedge vertically with the inset studs to the right. Connect the modified tile's overhang to the inset column of studs.

Step 6.6

Repeat the above steps to obtain a second part. To add the first part to the model, first orient it upright with the curved surface facing right and the studs at the top, then place it on the side studs on the right of the pot so that the top of the part is flush with the sides of the pot. The rail plates should sit against the sides of the pot, closing any gaps that might be present. Place the second part symmetrically on the left side of the pot.

Step 7

Collect four dark orange 3x3 round corner tiles (colloquially known as macaroni tiles). Orient one with one flat side faces left and the other faces the back. Locate the horizontal 1x2 of studs on top of the pot's rim at the front, then place the left end of the macaroni tile on the right stud. The right end of the tile should connect to the front stud of the vertical 1x2 of studs on the right side of the rim, and the tile's curved edge should follow the shape of the pot. Place the remaining three tiles symmetrically around the rim of the pot.

Step 8

Take a dark tan 2x2 round jumper plate and a dark tan 1x1 round plate with hollow stud. Put the jumper plate in the middle of the pot, then place the 1x1 plate on the stud of the jumper.

Now we can create the pot's inhabitant! Set the pot aside while we build the prickly pear.

Step 9

Begin by opening the next group of parts and finding a sand green 2x2 round plate.

Step 10

Gather two sand green 1x2 round plates and a sand green 1x1 round plate. Orient the 1x2 plates horizontally. Take one and place its right stud on the back left stud of the 2x2 plate, then place the second 1x2 plate to the right of the first. Add the 1x1 plate to the front left stud of the part.

Step 11

Find two more sand green 2x2 plates. Connect the back right stud of the first 2x2 plate under the left stud of the left 1x2 plate. Connect the second 2x2 plate by placing its back left stud under the right stud of the right 1x2 plate.

Step 12

Locate two sand green 1x1 round plates with 1L bar and two more sand green 1x1 round plates. Orient the plates with bars so the bars face you. Place a 1x1 plate on the leftmost stud of the front row of the part, then put a plate with bar to the right. Put the other plate with bar on the rightmost stud of the front row, then place the remaining 1x1 plate to the left.

Step 13

Gather three sand green 1x2 round plates and three 1x1 round plates. Use them to make three of the following part: Orient a 1x2 round plate vertically and connect a 1x1 round plate to the back stud. Place the first part on the leftmost stud of the part's back row, then put the second on the rightmost stud of the back row so that the parts overhang to the rear. To place the final part, turn it 180 degrees so the 1x1 round plate is in front, then connect the back stud of the part to the empty stud three columns in from the right end of the part.

Step 14

Find three 2x2 round tiles with cactus needles pattern. Each of these tiles is printed with a pattern of white spikes that originate from dark brown dots, representing the spines of the prickly pear. Place the first on the leftmost 2x2 of studs of the part, then place the next to the right of the first and finally place the last to the right of the second.

Step 15

Reorient the cactus upright with the studs and tiles facing you so that what was formerly the right end is now at the bottom and the left is at the top. You will now tilt and turn the sections of the cactus to give the plant its organic shape. First, turn the bar at the bottom counterclockwise so that it points directly away from the center of the bottom 2x2 tile – this bar will provide the connection to the pot. Then, twist and turn the 2x2 tiles and the protruding parts of the 1x2 plates into an organic shape such that no three sections form a straight line. This can be done by turning the top and bottom sections counterclockwise and then tilting the 1x2 plates and the bar at the top upward, so it appears that the cactus is reaching up to the sky.

Step 16

Finally, we can add a flower to our prickly pear. Take a yellow crown piece and a yellowish orange 1x1 hair piece – the crown has a single hollow stud in the center surrounded by five upturning spikes, and the hair piece has no studs and an odd, bumpy texture. Put the hair piece on the stud of the crown, then insert the bar at the top of the model into the stud of the crown from below.

Step 17

Add the cactus to the pot by inserting the bar at the base of the build into the hollow stud in the center of the pot.

The print instructions feature the following fun fact: “Did you know that prickly pear fruit is edible? And so are the big green ‘pads’. Just be sure to remove the spines before eating!”

Congratulations, you have completed the eastern prickly pear! The model retains the organic shaping of the real plant and is fully adjustable so you can pose it how you like.

The final model of the trio and of the set is the pincushion cactus. All the parts for the final plant are contained in bag 6.

Step 1

Open bag 6 and collect the first group of pieces. Take a yellow 2x2 plate and a black 4x4 round brick and place the plate on the middle 2x2 studs of the round brick.

Step 2

Gather four light grey 1x1 plates with horizontal clips. Take one and orient it with the clip to the left, then connect it to the front left stud of the 2x2 plate. Orient the second with the clip in the rear and place it behind the first, then put the next to the right with the clip to the right and finally place the last clip on the front right stud of the 2x2 plate with the clip facing forward. The assembly should now have rotational symmetry.

Step 3

Find another red 2x2 plate and a lime 2x2 round plate. Place the 2x2 plate on top of the clips, then stack the round plate on top.

Step 4

Locate a white 2x2 plate with an octagonal bar frame and another lime 2x2 round plate. Put the plate with bar frame on top of the pieces placed in the previous step, then put the round plate on top of the plate with bar frame.

Step 5

Find a red 2L axle and a dark grey 2x4 Technic plate with 3 pin holes. Orient the plate horizontally and connect the middle two columns to the round plate from the last step. The Technic plate should overhang the round plate by one column on both sides. Then, insert the 2L pin into the hole in the center of the Technic plate and push it in as far as you can.

Step 6

Get a dark tan 4x4 round plate and place it on top of the Technic plate so that the left and right sides of the plates are flush. It should overhang to the front and back by one stud.

Step 7

Gather eight lime 1x2 round plates, four white 1L bars with clips, and four dark orange 1x4 double-curved slopes. Use the pieces to create four of the following part:

Step 7.1

Take two 1x2 round plates and orient them horizontally. Place the second on top of the first.

Step 7.2

Orient a 1x4 slope horizontally and place its left two columns on the part. The slope should overhang the part to the right by two studs.

Step 7.3

Hold the part upright with the slope facing right and the round plates at the top. Take the 1L bar with clip and insert the bar into the bottom stud of the round plates, pushing it in as far as it will go. Ensure the clip is oriented so that a bar held by the clip would point toward you.

Step 7.4

Repeat the above steps until you have four identical parts. Now we can attach them to the main assembly. Locate the diagonal bars of the octagonal bar frame. Clip each part to one of the diagonal bars, ensuring that they are positioned in the middle of the bars. The 4x4 round plate at the top of the assembly forces the parts to sit at an angle from the vertical with the 1x4 slopes angling inward to rest against the 1x4 round brick at the base.

Step 8

Next, we will construct four identical panels to place on the front, back and sides of the pot. Get the next group of pieces and collect four tan 2x4 plates, sixteen dark orange 2x2 curved slopes, and four light grey modified 2x3 plates with four studs and bar handle on the bottom (informally referred to as rocker plates). Use the pieces to create the panels as follows:

Step 8.1

Orient a 2x4 plate horizontally and a curved slope so that it slopes down and away from you. Connect the front row of the slope to the right two studs on the back row of the plate.

Step 8.2

Connect a second slope to the left and aligned with the first, then place the remaining two slopes symmetrically in front.

Step 8.3

Flip the piece over and attach a rocker plate to the left three columns in the middle of the part.

Step 8.4

Repeat the steps until you have four identical parts. To place the first panel, orient it upright with the slopes facing you and the bar of the rocker plate toward the bottom. Push the bar into the clip in the middle of the front of the pot assembly. The panel should be forced to angle forward slightly, as its sides will rest against the 1x4 double-slopes from the last step. Place the other three panels symmetrically on the back and sides of the pot.

Set aside the assembly as we build the pot's rim.

Step 9

Locate a black 4x4 plate and place a sand green 2x2 round tile on its central 2x2 studs.

Step 10

Gather four brown 2x2 modified plates with 1x2 side studs. Orient one with the side studs facing front and connect the back row of the modified plate under the middle two studs of the front row of 4x4 plate. Place the other three modified plates symmetrically at the back and sides of the 4x4 plate.

Step 11

Take four lime 2x2 round plates. Place one in front of the 2x2 round tile in the center of the assembly, then place the others behind and to the left and right of the tile.

Step 12

Find four brown 1x1 round plates with 1L bar. Locate the front right corner stud of the 4x4 plate, to the right of the front 2x2 round plate, and place a bar plate on the stud with the bar at 45 degrees to the horizontal – in other words, the bar should point directly away from the center of the build. Place the remaining bar plates symmetrically at the other three corners of the assembly.

Step 13

Collect four tan 3x3 wedge plates. Orient the first with the right angle in the back left. Connect it so that the left column of studs covers the right column of the front 2x2 round plate and the back row covers the front row of the right 2x2 round plate. Place the others symmetrically around the assembly to create an octagon.

Step 14

Retrieve the next group of parts. Gather four dark orange 1x2 plates, eight dark orange 2x2 curved slopes, and four brown 2x2 modified plates with 1x2 side studs. Use the pieces to create four identical parts as follows:

Step 14.1

Orient a modified plate with the side studs facing you, then connect a 1x2 plate horizontally across the back row.

Step 14.2

Take a 2x2 curved slope and hold it horizontally curving down to the left. Connect its right column to the left column of the part. Place another curved slope symmetrically on the right of the part.

Step 14.3

Repeat the above steps until you have four identical parts. Orient one of the parts so the curved slopes face you and the side studs face up. Add it to the assembly by connecting the bottom row to the 1x2 side studs on the front of the assembly. Place the other symmetrically at the back, left and right of the assembly.

Step 15

To fill the gaps in the rim, we will build and place another four identical parts. Find four dark orange 1x2 plates, four dark orange 1x2 tiles, and four dark orange 1x2 modified bricks with single side stud.

Construct the parts as follows:

Step 15.1

Orient a 1x2 plate horizontally, then put a 1x2 modified brick horizontally on top with the side stud facing you.

Step 15.2

Place a 1x2 tile horizontally on top of the part.

Step 15.3

Repeat the above steps to obtain four of the part. To add the parts to the model, first locate the bars that stick out from the assembly between the curved sections placed previously. Insert a bar into the side stud of a part and push it all the way in. Do similarly with the other parts to fill the gaps in the rim.

Step 16

Find four dark tan 4x4 round corner tiles. Orient the first so it curves back from left to right and place its left end on the front right stud of the rim and its right end on the front left stud of the rim. Place the remaining three tiles symmetrically around the top of the assembly.

Step 17

The rim is now complete, and we can connect the top and bottom to complete the pot. Retrieve the lower section and place the rim of the pot on top so that the central 4x4 underneath the rim connects to the 4x4 round plate on top of the lower section.

Put the pot to the side – we will now focus on building the pincushion cactus! Open the next group of bricks.

Step 18

Locate a lime 2x4 plate and a light grey 2x2 round brick. Orient the plate horizontally and place the round brick on the middle 2x2 of studs.

Step 19

Collect two tan 1x2 bricks with 2x2 side studs and a lime 2x2 round plate. Place the round plate on top of the round brick. Next, orient a brick vertically with the side studs to the left and put it on the left of the round brick. Place the second brick symmetrically to the right of the round brick.

Step 20

Find two yellow 1x2 brackets with horizontal 2x4 side studs. Orient the first horizontally with the side studs facing you and connect it to the front row of the 2x2 round plate placed previously, then place the second symmetrically behind it.

Step 21

Take two lime 2x4 plates and place them horizontally across the side studs of the brackets placed in the last step.

Step 22

Gather four lime 2x2 round plates. Place the first on the left two columns of the front 2x4 plate placed previously, then put the second on the right two columns. Connect the remaining round plates symmetrically at the rear of the model.

Step 23

Get a dark tan 4x4 round plate and another lime 2x2 round plate. Connect the middle two rows of the 4x4 plate to the 2x4 of studs on top of the assembly, then place the 2x2 plate in the middle of the 4x4 plate.

Step 24

Collect eight dark green 1x1 tiles with upright bar. Surround the 2x2 round plate with them so there are two in front, behind, to the left and to the right of the plate.

Step 25

Gather four dark grey 1L bars with clips and four yellowish green 1x1 round plates with bar handles. Make four identical parts by clipping the bars with clips into the bar handles of the 1x1 round plates. Take the first part and orient it at 45 degrees to the horizontal so the 1x1 plate lies in the back left and the bar points to the front right. Connect the 1x1 plate to the front right stud of the 2x2 round plate in the middle of the model – the bar handle should sit snugly between two tiles with upright bars! Connect the remaining parts symmetrically to the other three studs of the 2x2 plate. Finally, tilt the bars up so they make a roughly 30-degree angle with the horizontal. We will use these as connection points later!

Step 26

Get another lime 2x2 round plate and place it in the middle of the assembly, locking the 1x1 round plates in place.

Step 27

Now that the internal structure of the cactus has been completed, we can make a start on the exterior. Set the build to one side, then get the next group of pieces. Start by taking a dark tan 4x4 round plate and placing a lime 2x2 jumper plate in its center.

Step 28

Find a lime 2x2 inverted dish and put it on top of the jumper plate.

Step 29

Gather four lime 1x2 round plates. Place one horizontally in front of the inverted dish, then place the rest symmetrically around the assembly, surrounding the jumper plate and dish. Finally, take a pearl gold 1x1 round plate with hollow stud and place it on the stud of the inverted dish.

Step 30

Collect four dark pink flowers with bars underneath. Insert the bar of a flower piece into the left stud of the front 1x2 round plate. Connect the remaining flowers to the other 1x2 round plates around the model, maintaining rotational symmetry.

Step 31

Then, locate four bright pink flowers with five pointed petals and small pin underneath. These small flowers connect to the flower parts placed in the previous step by inserting the small pin underneath them into a tiny hole in the middle of the other flower parts. Connect one to each of the four flowers.

Step 32

Next, find four tan flower stems – these small parts have a bar at their base and three small prongs at the end. They will be used here to represent the cactus' spines. Insert the bar end of each part into the exposed hollow studs of the 1x2 round plates around the model.

Step 33

Take a tan flower stem with bar and six stems and insert the bar at its base into the hollow stud of the 1x1 round plate in the middle of the assembly.

Step 34

The part is now complete! The assembly forms the top of the cactus, covered in small spines and ringed with vibrant pink flowers. Add it to the model by placing it on top of the interior structure, making sure it is centered.

The print instructions include the following fun fact: "Several species of pincushion cactus grow a lovely crown of flowers in vivid colors."

Step 35

Next, we will make the sides of the cactus. Take the final group of bricks and collect four pearl gold 1x1 round plates with hollow studs, four tan flower stems with bar and six stems, and four lime 4x4 round dome bricks. Use the pieces to create four identical parts in the following way:

Step 35.1

Take a 1x1 round plate and insert the bar at the base of a flower stem into the hollow stud of the plate.

Step 35.2

Place the part on a 4x4 round dome brick by putting the 1x1 round plate in the center of the square of studs in the middle of the dome.

Step 35.3

Repeat the above steps to obtain four identical parts. To place the first part, first orient it on its side so the flower stems face you. Locate the horizontal 2x4 of side studs on the front of the cactus, then connect the part's bottom two rows to the side studs. The top of the part should lie against the 4x4 round plate at the top of the model. Place the second part symmetrically at the back of the model. To place the third part, first orient it on its side with the flower stems facing left, then locate the 2x2 side studs on the left side of the model. Connect the middle two columns of the bottom two rows of the part to the side studs so that the part is centered with the top and bottom in line with the previously placed parts. Add the fourth and final part symmetrically to the right side of the model.

Step 36

Now you can pot your cactus! Retrieve the pot and add the cactus by connecting the base of the cactus to studded 'soil' of the pot. The cactus should be centered in the pot.

The print instructions include the following fun fact: "After being catalogued for the first time in the late 1920s, *Mammillaria crinata* f. *zeilmanniana* was largely unknown, until it was rediscovered in 1988 within a specific canyon area in Mexico."

Step 37

The cactus is not quite complete – note that there are four bars pointing out from the corners at the top of the cactus, which we can use to add some more spines. Gather the following pieces: eight pearl gold 1x1 round plates with hollow studs, four lime 2x2 inverted dishes, and four tan flower stems with bar six stems. Make four of the following part:

37.1. Take a 2x2 dish and place it on top of a 1x1 round plate.

Step 37.2

Put another 1x1 round plate on top of the dish.

Step 37.3

Finally, insert the bar of a flower stem into the hollow stud of the top 1x1 plate.

Step 37.4

Repeat the above until you have four identical parts. Find the bars which protrude from the corners at the top of the model and add the parts by inserting a bar into the hollow stud at the base of each part. The result is to give the cactus many more spines which point out at organic angles, and the dishes cover the few remaining holes in the body of the cactus.

Well done, you have finished the pincushion cactus! The cactus fills the pot, with very little of the light-colored soil showing under the big round body of the plant. Spines cover much of its bright green surface, and it is topped with a crown of bright but delicate flowers.

Congratulations on completing the trio of arid plants and, with it, the set! All nine plants are wonderful self-contained display pieces which could be placed around your home individually, in their trios, as a mix, or all together!

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